

PROCESS FOR OXYGENATION OF COMPONENTS FOR REFINERY
BLENDING OF TRANSPORTATION FUELS

ABSTRACT OF THE INVENTION

5 Economical processes are disclosed for production of
components for refinery blending of transportation fuels which are
liquid at ambient conditions by selective oxygenation of refinery
feedstocks comprising a mixture of organic compounds. The organic
10 compounds are oxygenated in a liquid reaction medium with an
oxidizing agent and heterogeneous oxygenation catalyst system
which exhibits a capability to enhance the incorporation of oxygen
into a mixture of liquid organic compounds to form a mixture
comprising hydrocarbons, oxygenated organic compounds, water of
15 reaction, and acidic co-products. The mixture is separated to
recover at least a first organic liquid of low density and at least a
portions of the catalyst metal, water of reaction and acidic co-
products. Advantageously, the organic liquid is washed with an
aqueous solution of sodium bicarbonate solution, or other soluble
20 chemical base capable to neutralize and/or remove acidic co-
products of oxidation, and recover oxygenated product.